

US EPA ARCHIVE DOCUMENT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
901 NORTH 5TH STREET  
KANSAS CITY, KANSAS 66101

MAR 08 2006

Michelle Wei  
Manager, Environmental Remediation and Response  
MidAmerican Energy Company  
Environmental Services  
Urbandale Business Center  
4299 NW Urbandale Drive  
Urbandale, Iowa 50322-7916

Dear Ms. Wei:

RE: Peoples Natural Gas Superfund Site, Dubuque, Iowa

The United States Environmental Protection Agency (EPA) has completed review of the Technical Impracticability Evaluation Report dated November 2005. In general, this report was clearly written, well organized, and consistent with the 1993 guidance on technical impracticability waivers. Enclosed to this letter are the comments that the EPA has on this document as well as comments received from the Iowa Department of Natural Resources. The report shall be modified to address the EPA's comments and resubmitted for review.

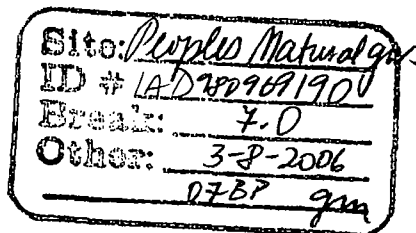
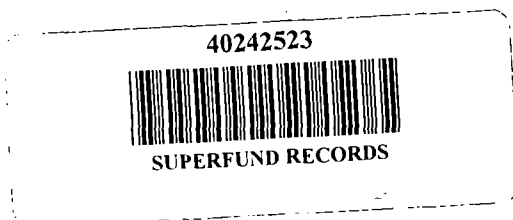
If you have questions regarding this or any other issue pertaining to this site, do not hesitate to contact me at (913) 551-7746.

Sincerely,

Diana L. Engeman  
Remedial Project Manager  
Iowa/Nebraska Remedial Branch  
Superfund Division

Enclosures

cc: Dan Cook, Iowa Department of Natural Resources



COMMENTS ON THE TECHNICAL IMPRACTICABILITY EVALUATION REPORT  
DATED NOVEMBER 2005  
FOR THE PEOPLES NATURAL GAS SITE IN DUBUQUE, IOWA

Section 1.1, p. 1-1 The first sentence should be changed to more accurately reflect the language of CERCLA 121(d)(4). For example, "...purpose...to document the necessity of selecting cleanup levels that do not meet all applicable or relevant and appropriate standard, requirement, criteria, or limitation because compliance with such requirements is technical impracticable from an engineering perspective." Specifically, the mention of "reasonable cost" should be deleted as this is not a criteria for technical impracticability.

Section 1.6, p. 1-5 It is stated that there are no water wells on site or on adjacent properties, which is correct. However, there are several wells in the area, which are discussed in subsequent sections of the report, which could potentially impact the site if pumped.

Section 1.7.1, p. 1-5 The future of the FDL wells needs to be confirmed if it is possible to do so. If all that can be provided is speculation about the future of these wells then it should be clearly stated.

Definite information on the Rousselet well needs to be determined, i.e., location, depth, construction, use.

Section 1.7.2, p. 1-6 Need to know what the detection limits were for the sediment samples taken from Dove Harbor. It is possible that very high detection limits were used, rendering the data relatively meaningless.

It is not clear that the groundwater contaminant transport model used is still valid, in light of the more recent information concerning the presence of DNAPL and the improved delineation of the extent of the lower confining unit (LCU).

Section 2.1.4, p. 2-2 The last sentence concludes that the LCU is present in all of the impacted and source areas but there is also a concern about whether it exists in areas where the contamination may move to in a non-pumping scenario. This must be considered and discussed.

Section 3.1.2, p. 3-2 It seems that it should be possible to determine the approximate location of the Phase 3 excavation from Bob Buschbom, who was the project manager at the time.

Section 3.2.4, p. 3-6 The point of this section is to conclude that it would not be reasonable to continue to try to pump and treat to remediate the groundwater at the site. That point does not come across as clearly as it could in this section. The fact that \$17M has been spent to this point is not particularly relevant to the issue of technical impracticability, especially if the contamination could be cleaned up in 30 years for only an additional \$1.8M, which is implied. In the previous paragraph it is estimated that it

would take 90 years to remediate BETX and 17,300 years for PAHs. Focus on the technical impracticability of pump and treat as demonstrated by seven difficult years of operation, as well as the extremely long period of time to achieve cleanup levels.

Costs are in Appendix J, not I.

Section 3.3.3, p. 3-8 The groundwater concentration graphs are in Appendix I, not J.

Section 4.1.4, 4-2 The trend analysis graphs are in Appendix I, not J.

Section 4.2, p. 4-4 In the final paragraph it appears that the reference should be to Table 4-3 rather than 3-2, which doesn't exist.

Section 5.2, p. 5-1 It is very difficult to believe that the silty sand aquifer is isolated from the Mississippi River by the UCU. While this conceivably could be true right at Dove Harbor, it seems very unlikely where the channel of the river gets significantly deeper. This issue appears throughout the document.

Section 5.5.1, p. 5-6 Same issue as the previous comment.

Section 5.5.2, p. 5-6 The discussion of DNAPL in this section raises the question of what monitoring methods would be used to ensure that the DNAPL is not moving.

Section 6 Throughout this section there is a discussion of "Key Performance Limitations" of each technology. It is not clear how the approximate percent of contaminant mass that is inaccessible to remediation was determined for each technology. Specifically, since in situ solidification can be extended several feet under building foundations and other structures, the percentage of inaccessible mass would be less than for excavation.

Section 6.1.2, p. 6-2 Thirty years is not necessarily a "reasonable" timeframe. It is frequently a timeframe used in cost estimating but the issue is the amount of time needed to achieve the RAOs. This issue appears throughout the document with some variations, including section 6.2.4, 6.3.2, and 6.4.3.

Section 6.1.3, p. 6-2 The cost tables are in Appendix J. This error appears throughout the document.

Section 6.1.4, p. 6-2 The timeframe for remediation is critical to the decision to grant a TI waiver. There needs to be more information included in the report on how the time to achieve cleanup levels was determined.

Section 6.4.4, p. 6-6 There is no timeframe estimate given in this section.

Section 7.1, p.7-1 It appears that the most significant issue in terms of control is how to control pumping by others that might influence the movement of contamination in groundwater, i.e., FDL. This has not been discussed.

All institutional control issues may need to cover areas other than just the site or the area that is defined as the TI zone later in the report.

Section 7.2, p. 7-1 It is presumed that the DNAPL migration would be limited by the slope of the LCU but there would need to be monitoring to confirm that this assumption is correct. It is not clear that such monitoring is contemplated.

Section 7.3, p. 7-2 It appears that consideration needs to be given to the placement of monitoring wells downgradient of P-112.

It is not clear that the dissolved plume is currently stable. If the plume is not stable under current conditions, including MNA processes, why should it be expected to become stable in the future?

It is not clear what “contingent remedy” is contemplated. If there is no specific contingency planned, this reference should be deleted.

Section 8.1, p. 8-1 There are assumptions in this paragraph that may either need further proof and/or will need plans for monitoring to confirm that they are correct. It is believed that these have been listed in previous comments

Section 8.2, p. 8-1 It would be preferable to delete the reference to “reasonable cost” from this argument for waiving ARARs.

Section 8.3, 8-1 It appears that the TI zone includes all areas where DNAPL was observed in the subsurface, or otherwise suspected based on CPT or TarGOST™ data. If that is correct, it would be helpful to clearly state that here.

Section 9, p. 9-1 In the opening paragraph it is stated that no receptors have been significantly impacted. While this is true, it is also necessary to protect potential future receptors as well.

I think in the list of limitations, there should be a mention of the less than successful attempts to pump and treat groundwater.

Section 9, p. 9-2 In the last bullet a “contingent remedial action” was mentioned without being specific. It is a given that if any selected remedy ultimately fails the EPA will have to select an alternative to address the site but a contingency remedy should not be mentioned unless it can be specified what it would be.



# STATE OF IOWA

THOMAS J. VILSACK, GOVERNOR  
SALLY J. PEDERSON, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES  
JEFFREY R. VONK, DIRECTOR

December 23, 2005

RECEIVED

Diana Engeman  
U. S. Environmental Protection Agency  
Region VII  
901 North 5<sup>th</sup> Street  
Kansas City, Kansas 66101

JAN 03 2006  
SUPERFUND DIVISION

Re: Technical Impracticability Evaluation Report for the Former People's Natural Gas Site, Dubuque, Iowa dated November 2005 (EPA ID# IAD980852578)

Dear Ms. Engeman:

The Iowa Department of Natural Resources, Contaminated Sites Section (Department), has completed the review of the Technical Impracticability (TI) Evaluation Report referenced above. Overall the Department agrees with MidAmerican Energy Company's evaluation of the groundwater plume characteristics, migration potential determination, and the ineffectiveness of recovery efforts relying on vapor extraction for coal tar related DNAPL groundwater contamination. As for the groundwater, the Department feels the development of an environmental covenant along with monitoring groundwater conditions for a specific period of time would be protective of human health.

The Department does have some reservations with leaving the amount of DNAPL impacted soil described in the TI evaluation report in place. Also the Department believes an additional potential remedial strategy should have been added that would demonstrate the feasibility of demolishing/replacing the current City of Dubuque Public Works Garage and temporary removal of the sanitary sewer force main. Maximum source removal should be the primary objective and would create the most affective remedy.

If you have any questions or need further information please feel free to call or e-mail at (515) 281-4171 or [dan.cook@dnr.state.ia.us](mailto:dan.cook@dnr.state.ia.us).

Sincerely,

A handwritten signature in black ink, appearing to read "D. Cook", written over a horizontal line.

Daniel Cook  
Environmental Specialist Senior  
Contaminated Sites Section